


SONNEBORN'S

**LAPIDOLITH
LIQUID**

THE PATENTED
LIQUID HARDENER and
DUSTPROOFER for
CONCRETE and
TERRAZZO FLOORS



NOTE TO MAINTENANCE ENGINEERS
For your convenience we have combined
in this one folder a brief description of
what Lapidolith Liquid is and how it can
be used by you in your plant. If you need
additional copies for cross-filing, or more
information on Lapidolith Liquid or its
application, please write our main office.

NICK REIDY
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FL 4000

25-G

100¢ per gal (3 coats) = \$1.75 less 10% =

● THE CONCRETE HARDENER THAT CANNOT BE COPIED

In the early 1900's Sonneborn introduced the simple and effective method of dustproofing and hardening concrete floors by a chemical hardener known as Lapidolith Liquid. For years this fine product has been used in countless factories, schools, and other buildings from coast to coast. Hundreds of testimonials praise its effectiveness.

Our laboratories have recently developed a radical improvement in Lapidolith Liquid which increases notably the extent to which it penetrates into the structure of the concrete, and assures even more lasting hardening action than has ever before been possible. This improvement is so basic in fact, that the U. S. and British Patent Offices recognized this invention and Lapidolith Liquid is now protected by both U. S. and British patents.

● IMPROVED WETTING ACTION, SPREADING EFFICIENCY AND PENETRATION

Two unique and outstanding discoveries were the basis for securing the patents.

1. Lapidolith Liquid has at least 100% lower surface tension than any concrete floor hardening solution of the same concentration. This means deeper penetration—more thorough hardening.
2. The low surface tension assures a more effective reaction with the lime and calcium carbonate in the cement because Lapidolith Liquid reaches into the tiny voids and capillaries which ordinary hardeners cannot penetrate.

This effective penetration prevents the "blocking off" caused by surface reactions to which ordinary liquid hardeners are so frequently subject.

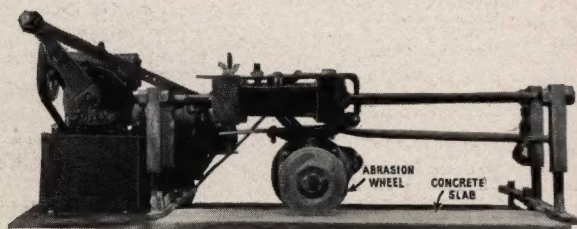
NOT ONE, BUT MANY TESTS PRO



FOR HARDNESS ON HEAVY DUTY FLOORS

The degree of hardness imparted to concrete by Lapidolith Liquid is confirmed by the following scientific evaluations:*

Taking the abrasion index of untreated 1:2 concrete as 100, scientific tests, conducted by independent laboratories, of the effectiveness of Lapidolith Liquid in hardening concrete, have shown that the treatment raises the abrasion index of the concrete to 225 or more than twice the value for the untreated surface. By comparison, a hardening treatment based on the use of surface aggregates raised the abrasion index to 167 or only two-thirds above the value of the untreated concrete.



* Obtained with modified Dorry Abrasion Testing Machine, illustrated herewith.



FOR DUSTPROOFNESS

Concrete cubes, two weeks old, some treated with Lapidolith Liquid and some untreated show the following comparison after 200 revolutions of an abrasive disc.

	Grams
Untreated sample weighed before test	750
After the test	429
Loss in weight 41% or	321
Lapidolized sample weighed before the test	770
After the test	742
Loss of only 3 1/2% or	28

The above tests confirm over a quarter of a century's experience in the treatment of millions of square feet of concrete. Lapidolized concrete attains a degree of hardness which, when subjected to traffic, virtually makes it immune to dusting—concrete dust is usually the first sign of concrete disintegration.

● SEE FOR YOURSELF HOW LAPIDOLITH LIQUID WORKS



50 diameters

UNTREATED CONCRETE

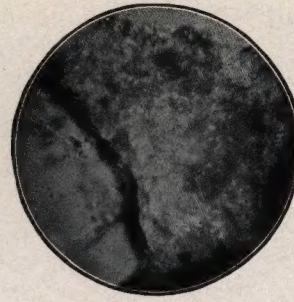
Note the large numerous voids (black spots) and the roughness of the surface.



50 diameters

LAPIDOLIZED CONCRETE

Note the roughness is reduced and the voids have been filled by a network of a newly formed hard crystalline substance.



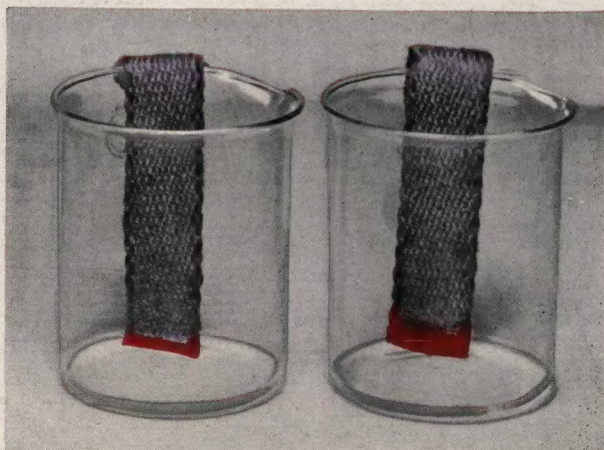
120 diameters

LAPIDOLIZED CONCRETE

Note the new component formed by the action of Lapidolith on the cement matrix. An isometric crystal form is indicated.

LOVE THE SUPERIORITY OF SONNEBORN'S

✓ **FOR PENETRATION OF LAPIDOLITH LIQUID**



Graphic proof of the more effective penetration of Sonneborn's patented Lapidolith Liquid is shown by the following test which was made at the Foster D. Snell, Inc., Laboratories:

In the photograph are two glass beakers, the one on the right contains Lapidolith Liquid to a depth of one-tenth inch, the one on the left 20" Baumé

Solution of commercial silico-fluoride in the same amount.

Duplicate cotton wicks previously treated with blue litmus solution and dried were placed as shown in a vertical position. Since both solutions are acid in reaction to litmus, the wicks turn red at the line of contact.

But Patented Lapidolith Liquid, due to its superior wetting action, rose in the wick to nearly three-eighths inch within a half hour while the solution of the commercial silico-fluoride barely rose beyond the line of contact.

● ● ●
Here's what the Snell Laboratories say:

"The accompanying photograph is a clear and accurate record of the results obtained. . . . It demonstrates clearly that Lapidolith Liquid has a much greater wetting power than an ordinary aqueous solution of commercial magnesium silico-fluoride of approximately the same density."

WHAT SONNEBORN'S PATENTED LAPIDOLITH LIQUID WILL DO

- Will wearproof concrete floors.
- Will dustproof concrete floors.
- Will harden concrete floors.
- Will strengthen concrete wainscoting.
- Will harden floors containing iron filings or other special aggregate.
- Will waterproof and oilproof concrete floors, walls and containers.

WHAT SONNEBORN'S PATENTED LAPIDOLITH LIQUID WILL NOT DO

- Will not make a pitted floor smooth.
- Will not color concrete floors.
- Will not cover floors with a film.
- Cannot be used on any floor which does not absorb water, such as painted floors.
- Should not be mixed with concrete.

Concrete floors treated with Lapidolith Liquid may be painted with Sonneborn's Cemcoat for floors.

PATENTED LAPIDOLITH LIQUID

✓ FOR PERMEABILITY

Extensive tests were made and water forced under 30 lbs. pressure through pipes filled with untreated concrete and Lapidolized concrete. These tests showed that Lapidolized concrete absorbs only one-tenth as much water as untreated concrete. The figures below represent cu. cm. of water which permeated the bodies of concrete in given time:

Time Water Permeated	Untreated Concrete	Lapidolized Concrete
1st min.	1.132 cu. cm.	0.135 cu. cm.
30th min.	0.186 cu. cm.	0.074 cu. cm.
60th min.	0.174 cu. cm.	0.046 cu. cm.

Because Lapidolith Liquid reduces the permeability of concrete, it reduces the risk of damage from freezing during the winter months.

✓ FOR PROTECTION AGAINST OILS

This photograph shows a concrete block which was immersed in Oleic Acid for 10 weeks.



This part of the concrete block was treated with Lapidolith Liquid and shows no change.

This part was left untreated and shows the destructive action of Oleic Acid.

It is therefore recommended that wherever concrete is exposed to oils it be treated with Lapidolith Liquid for protection. This includes surfaces in oil refineries, warehouses, garages, machine shops, engine rooms, packing plants, soap factories, creameries, etc. The range of uses for concrete floors and tanks is thus extended, since heretofore their susceptibility to destruction by animal, vegetable, and mineral oils eliminated their use where these oils are encountered.

SONNEBORN'S PATENTED LAPIDOLITH LIQUID IS EASY TO APPLY

NO WAIT, NO DELAY OF PRODUCTION OR USE OF FLOORS

Concrete floors can be hardened and dustproofed with Lapidolith Liquid with no more effort than required for a simple washing of the floor. The floors can be used during the application. They should be dry, clean, and free from dust, oil, or paint. New floors must be thoroughly set and dry before applying Lapidolith Liquid.

Concrete of average density requires about one gallon for each 100 sq. ft. of surface for the three applications. If floors are made of colored cement or terrazzo send for special directions. Full instructions on how to apply Lapidolith Liquid simply and easily are furnished with every shipment.



For over 25 years, Lapidolith Liquid has been regarded as a most efficient and dependable treatment for the hardening and dustproofing of concrete. Here is a partial list of satisfied users:

CALIFORNIA

The Sunshine Company
A. Fleishhacker & Company

CONNECTICUT

McKesson & Robbins, Inc.
New Departure Mfg. Co.
Aetna Life Insurance Co.
G. Fox Company
Hartford Electric Light
Electrolux Corp.
Duke Laboratories, Inc.
Norma-Hoffman Bearings Co.
Town of Stratford
The Wiremold Company

DELAWARE

Hercules Powder, Inc.
E. I. duPont de Nemours Co.
duPont High School

GEORGIA

Southern Bell Telephone Co.
Pacolet Manufacturing Co.

ILLINOIS

American Car & Foundry Co.
Chicago Stadium
Clearing Industrial Dist.
Commonwealth Edison Co.
De Normandie Laundry
Owens-Illinois Glass Co.
Marshall Field & Co.
Notre Dame High School
Wurlitzer Organ Company
The Cradle
Western Clock Company
Landstrom Furniture Co.

INDIANA

Indiana University
Evansville College
Mead Johnson & Co.
Eli Lilly & Company
Seagram Distillers Corp.
Bendix Aviation Corp.

IOWA

The Oliver Farm Equipment Co.

KANSAS

University of Kansas
Kansas State College
Dr. Pepper Bottling Co.
Southwestern Bell Telephone Co.
Sears Roebuck & Co.

KENTUCKY

Schenley Distillers Corp.

LOUISIANA

Pan-American Petroleum Corp.
Maison Blanche
Tulane University

MARYLAND

Calvert Distillers Corp.
Johns Hopkins Hospital
University of Maryland
Celanese Corp. of America
Doughnut Mach. Co. of America
Pangborn Corp.
Bethlehem Steel Co.

MASSACHUSETTS

Boston Elevated Railway
Danvers Bleachery Pequot Mills
Holyoke Street Railway Co.
General Electric Co.
Municipal Stadium
Ruberoid Company
Cranberry Cannery, Inc.
United Electric Company

MICHIGAN

Kellogg Company
Ford Motor Company
Great Atlantic & Pacific Tea Co.
Bell Telephone Company
Briggs Manufacturing Co.
Cadillac Motor Car Division
Chevrolet Motor Division
The Diesel-Wemmer-Gilbert Corp.
Detroit Creamery Co.
Detroit Edison Company
The Detroit Free Press

Fisher Brothers Building
General Motors Corporation
J. L. Hudson Company
Parke, Davis & Co.
University of Detroit
U. S. Rubber Company
Consumers Power & Light Co.

MINNESOTA

Cream of Wheat Corp.
Land O'Lakes Creameries, Inc.
University of Minnesota

MISSISSIPPI

Junior & Senior High Schools

MISSOURI

Lincoln University
Johnson, Stephens & Shinkle Shoe Co.

Stanley Rea Serum Company
Essex County Vocational Schools

NEBRASKA

Wells-Abbott-Nieman

NEW HAMPSHIRE

Public Service of N. H.

NEW JERSEY

Jersey Central Power & Light Co.
Blair Academy
U. S. Coast Guard
Congoleum-Nairn, Inc.
Essex County Vocational Schools
Y. M. C. A.
Y. M. H. A.
Y. W. H. A.
Julius Forstmann Corp.
Wright Aeronautical Corp.
Merck & Co., Inc.

NEW YORK

Grumman Aircraft Corp.
Drake Bakeries, Incorporated
Brooklyn Borough Gas Co.
Savarsky Aircraft Corp.
Remington Rand, Inc.
The Upson Company

Madison Square Garden
Ingersoll-Rand Company
Life Savers Corp.
Neisner Bros. Co.

NORTH CAROLINA

McCrary Mills Co.
Duke Power Co.
Horton Motor Lines
Duke University
Burlington Mills
Proximity Mfg. Co.
P. H. Hanes Knitting Co.
Taylor Tobacco Company

OHIO

Ohio Edison Company
Ohio University
Ohio Power Company
Crampton Canneries, Inc.
Kroger Grocery & Baking Co.
Procter & Gamble Co.
Republic Steel Corporation
Ohio State University
Dayton Rubber Mfg. Co.
Frigidaire Div. of General Motors
Miami University
The American Rolling Mill Co.
Wrenn Paper Co.
Val Decker Packing Co.
Selby Shoe Company
Hinde & Dauche Paper Co.
La Salle Koch Co.
Toledo Edison Company
The Ohio Match Co.

OKLAHOMA

Dewey Portland Cement Co.

PENNSYLVANIA

Standard Pressed Steel Co.
McKeesport Tin Plate Co.
Collins & Aikman Corp.
Philadelphia Electric Co.
Sun Oil Company
Aluminum Co. of America

Bell Telephone Company of Pa.
West Penn. Power Co.
Joseph S. Finch Co.
Jesuit Novitiate

RHODE ISLAND

Patton-MacGuey Co.

SOUTH CAROLINA

Citadel
Clemson College

TENNESSEE

Gray Hosiery Mills
Borden Mills
General Shoe Corp.
M. E. Publishing House South
Vanderbilt University

VIRGINIA

Virginia Polytechnic Institute
Greyhound Bus Terminal
Dan River Mills
Coca Cola Bottling Co.
Newport News Shipbuilding & Drydock
American Radiator Company
Philip Morris & Co., Ltd., Inc.
Southern Biscuit Co.
Dr. Pepper's Bottling Works
Viscose Corp. of America

WASHINGTON

Bemis Bro. Bag Co.

WEST VIRGINIA

Kanawha Valley Bank Building
Harker Pottery Co.
C. & P. Telephone Co.

WISCONSIN

Shefford Cheese Co., Inc.
Wisconsin Power & Light Co.
Municipal Stadium
Omar Bakeries
Frozen Foods & Storage Corp.

WYOMING

Midwest Refining Co.

Use these other Sonneborn Quality Products to keep your buildings at their best

FOR FINISHING AND PROTECTING WOOD FLOORS

Lignophol—one application preservative and finish; easy to apply; easy to maintain; long term performance without retreatment; low unit cost.

FOR GIVING CONCRETE FLOORS A DECORATIVE FINISH

Cemcoat Filler and Dustproofers—for giving floors a tough wearing coating; in colors and transparent; long-lasting durable finish.

Other tested treatments for patching and repairing old or new floors are also available.

FOR WAXING FLOORS

Liquid, paste and rubless types.

FOR CAULKING

Airproof, non-shrinking, waterproof compounds; particularly adapted for caulking around window frames and door jambs, waterproofing cracks and crevices in concrete, etc.

FOR PAINTING OF INTERIORS AND EXTERIORS

Paint, Varnish, Enamel and Protective Coatings. A suitable, efficient type of product and finish available for walls, ceilings, equipment, etc.; for masonry, wood, and metal surfaces.

FOR ROOF PROTECTION

Stormtight and other tested protective coatings to meet various conditions.

FOR WATERPROOFING

Hydrocide for masonry waterproofing and dampproofing foundations. Colorless Hydrocide for exterior walls above grade.

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For full details on any of the above quality products and for complete catalogue of all Sonneborn Maintenance Products please write to our main office. Our Technical Service Department is available for "on the spot" assistance in overcoming especially troublesome problems. This service is available on request and involves no obligation.

Where Results Count—Count on Sonneborn

L. SONNEBORN SONS, INC.
88 LEXINGTON AVE. NEW YORK, N. Y.

TIMELY INFORMATION

The application of Lapidolith Liquid will not interfere with your working schedule. The floors can be kept in use during and directly after the application of Lapidolith Liquid, if necessary.

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